



## ***Operator's Manual***

MANPOSTHOLE REV E 5/03/07

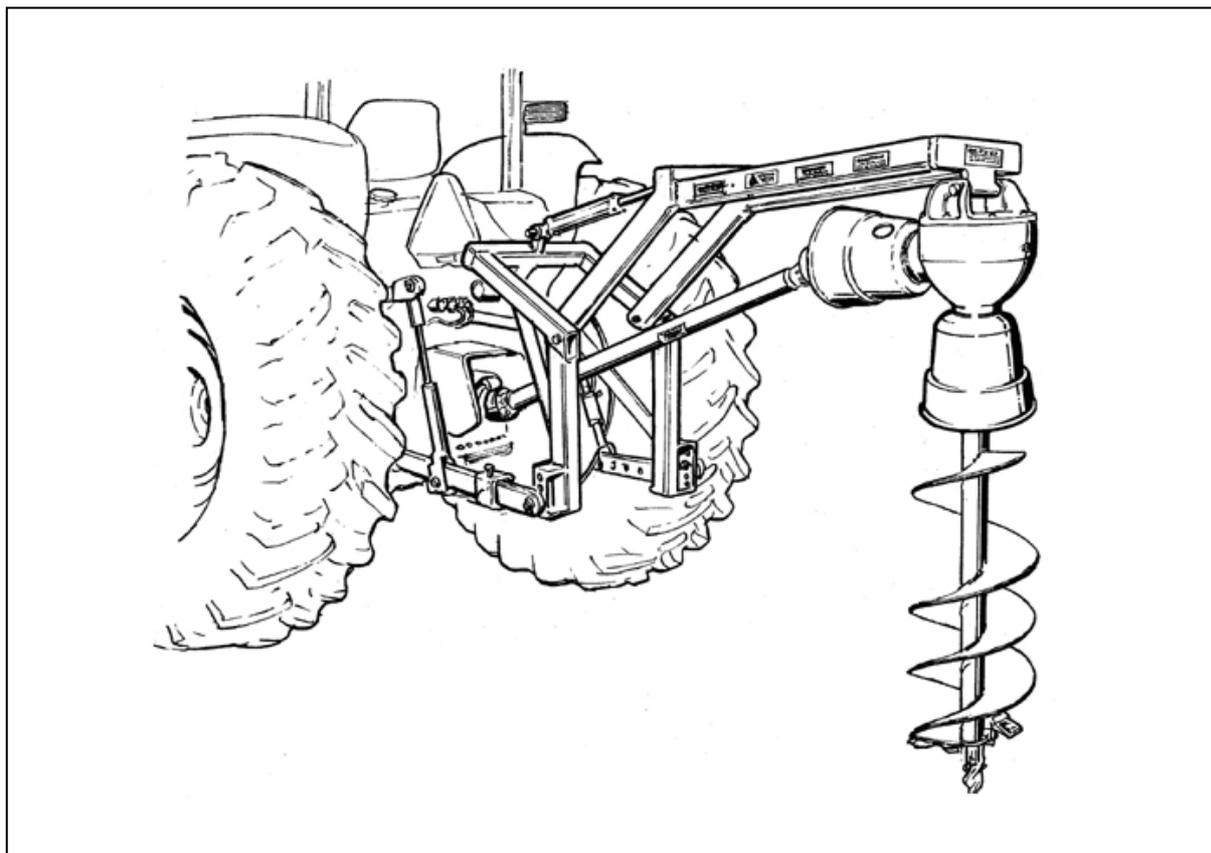
### ***Post Hole Digger Range***

***40 HP Model***

***50 HP Model***

***75 HP Model***

***50 HP & 75 HP Hydraulic Down  
Pressure Models***



**SAFETY WARNING:**

**PLEASE READ THIS MANUAL THOROUGHLY BEFORE ATTACHING  
OR OPERATING THE POST HOLE DIGGER.**

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No liability can be accepted for any inaccuracies or omissions in this publication, although due care has been taken to make it as complete and accurate as possible.

The information, illustrations and technical data were considered to be correct at the time of preparation.

In accordance with our policy of continuous development Silvan Australia Pty. Ltd. reserves the right to make changes at any time without notice.

**YOUR POST HOLE DIGGER DETAILS**

Record the details of your post hole digger here for future reference when discussing service with your Silvan dealer, ordering parts or making a warranty claim.

SERIAL NUMBER \_\_\_\_\_

MODEL \_\_\_\_\_

DATE OF DELIVERY \_\_\_\_\_

SELLING DEALER \_\_\_\_\_

ADDRESS \_\_\_\_\_

TELEPHONE NO. \_\_\_\_\_

INSTALLED BY \_\_\_\_\_

## Contents

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	<i>Page</i>
<b>Introduction</b>	1
<b>Specifications</b>	2
<b>Warranty</b>	
About Your Warranty	2
Warranty Policy	3
<b>Safety information</b>	4
<b>Operation</b>	
Attaching to the Tractor – Initial Assembly	6
Standard Models	6
Hydraulic Down Pressure Models	6
Connecting Hydraulic Hoses	7
Attaching Gearbox and Auger – All Models	7
Connecting PTO Shaft – All Models	7
Detaching Digger from the Tractor	8
Attaching Assembled Digger to the Tractor	8
Changing the Auger	8
Changing Auger Teeth and Pilot	8
Adjusting Slip Clutch	9
Safety Covers	9
Safe Auger Operation	9
Important Safe Work Practices	10
General Operation	10
Transporting	11
<b>Lubrication and Maintenance</b>	12

## Introduction

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Silvan Australia Pty. Ltd. is an Australian owned company specialising in the supply of equipment to primary producers. A leader in the design of agricultural sprayers and associated equipment, the company was established in 1962 and has grown to become the largest manufacturer and supplier of crop protection equipment in Australia.

At Silvan we are extremely proud of our reputation for quality products backed by quality service. Your investment in a Silvan product is an investment in quality.

This manual covers all models of Silvan three point linkage, tractor mounted, PTO driven post hole diggers including the 40 HP, 50 HP and 75 HP models and the 50 HP and 75 HP Hydraulic down pressure models.

Silvan post hole diggers are designed and manufactured to provide a high standard of performance and safety. To ensure continued safe and efficient operation of your post hole digger, you need to read this manual thoroughly and fully familiarise yourself with all aspects of the machine's operation, maintenance and safety procedures. **Because of the unguarded auger, all post hole diggers are inherently dangerous machines. For this reason pay particular attention to the safety instructions contained within this manual.**

Now that you are a proud Silvan owner, all our services and dealer support is available to you should you need them. We assure you of our best attention at all times.



## Specifications

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### Mainframe

Welded RHS steel construction.

Removable lower linkage pins

Category 1 All Models

All models have Category 2 bushes supplied also

### Driveline

Fully shielded telescopic PTO shaft.

Overload protection

Adjustable twin disc spring loaded friction clutch

6 in. dia. on 40 and 50 HP, 8 in. dia. on 75 HP

Flexible safety shields over clutch and auger to gearbox connection.

Cast iron gearbox with heat treated bevel gears and shafts.

Gearbox lubrication SAE 85-140 gear oil.

### Weight without auger attached

40 HP 102 kg

50 HP 107 kg

75 HP 126 kg

50 HP Hydraulic 157 kg

75 HP Hydraulic 167 kg

### Augers

Interchangeable augers with welded steel flights and forged steel boring head.

Replaceable forged steel teeth and pilot bit.

Flat or chisel teeth, plain or tungsten tipped.

Plain or tungsten tipped pilot bit.

Digging depth 1 metre.

Auger <u>Diameter</u>	Auger <u>Weight (kg)</u>
4 inch	10
6 inch	14
8 inch	16
9 inch	20
10 inch	22
12 inch	23
15 inch	34
18 inch	36
20 inch	45
24 inch	51

### Hydraulics (Hydraulic Down Pressure Models)

Double acting cylinder 3" dia. x 12" stroke

Two hydraulic hoses with quick release fittings.

## About Your Warranty

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Silvan Australia Pty. Ltd. builds equipment to a high level of specification using components from quality suppliers. The following information is provided to assist you with any repairs required within the warranty period.

- All warranty repairs on Silvan products are carried out by Silvan dealers. If any warranty repairs are required on Silvan products, it is recommended that the product be returned to the place of purchase.
- It is good practice to keep a record of equipment maintenance both during and after the warranty period.

The following information on warranty coverage explains the extent and limitations of your Warranty coverage on Silvan Products.

## New Product Warranty

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# Warranty

**This warranty is the only warranty applicable to Silvan new products ('Products') and, to the maximum extent permitted by law, is expressly in lieu of any other conditions or warranties expressed or implied in relation to the Products.**

**Subject only to legislative obligations to the contrary, Silvan shall not be liable for incidental or consequential damage resulting from ownership or use of a Product.**

**Silvan does not authorize any person to create for it any other obligation or liability in connection with these products.**

Silvan warrants its authorised Dealer, who in turn warrants the original purchaser (owner) of each new Silvan product that it will repair or replace the product, or, pay the cost of repair or replacement, as determined by Silvan without charge for labour or any defective or malfunctioning parts in accordance with the warranty limitations and adjustment schedule below.

The warranty period begins on the date the product is delivered to the first retail purchaser for a period of 12 months

### *This Warranty Covers*

Only conditions resulting directly from defects in workmanship or material under normal use and service.

### *Warranty Exclusions*

The Warranty does not cover:

- Conditions resulting from misuse, use of incompatible chemicals, exceeding machine specifications including overloading, impact damage, negligence, accidental damage or failure to perform recommended maintenance services.
- Any product which has been repaired by other than an authorised Silvan service outlet in a way which, in the sole and absolute judgement of Silvan, adversely affect its performance or reliability.
- The replacement of maintenance items such as diaphragms, batteries, V belts and ground engaging components, etc.
- Loss of time, inconvenience, loss of use of the product liability to third parties or any other consequential damages.
- Incidental costs associated with a warranty repair including any travel costs, out of hour's labour charges, cleaning costs, transportation costs, freight costs or any communication costs.

The repair of a defective product qualifying under this warranty will be performed by any authorised Silvan service outlet within a reasonable time following the delivery of the product, at the cost of the owner, to the service outlet's place of business. The product will be repaired or replaced, using new parts supplied by Silvan. Silvan, in its absolute discretion, may choose to pay the cost of replacement or repair of the product.

The owner is responsible for the performance of regular maintenance services as specified in the Owner/Operator Manual applicable to the product. Failure to carry out regular maintenance may invalidate warranty

## Safety Information



**Before operating the post hole digger read the following safety instructions.**

**Failure to comply with these warnings may result in serious injury or death.**

Whilst your Silvan post hole digger has been designed and manufactured to incorporate all necessary safety features it is **absolutely essential** that any person who operates or works on the machine is aware of the safety precautions that should be exercised.

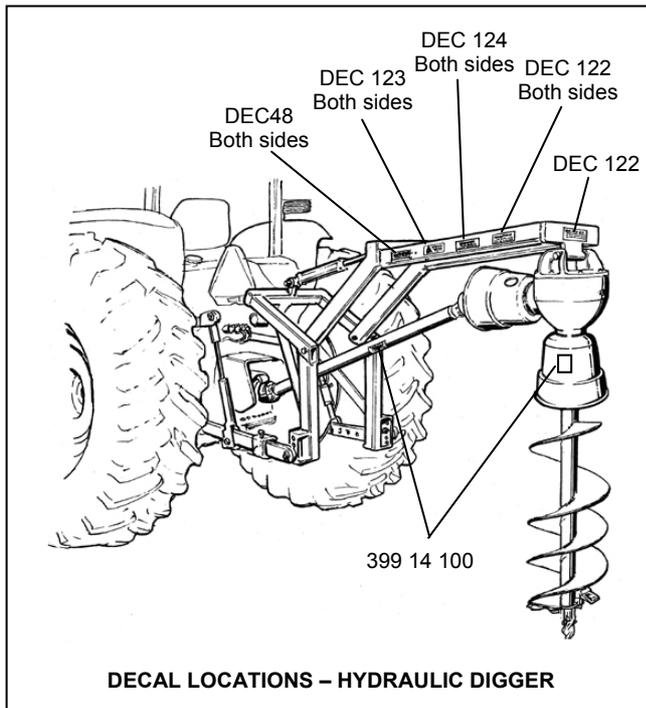
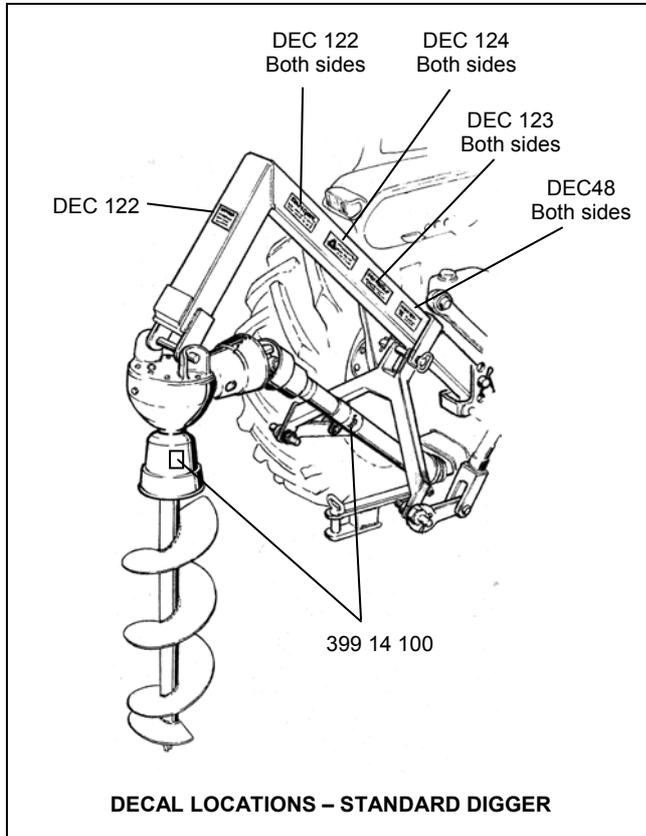
- ▲ Silvan post hole diggers are designed and manufactured solely for the purpose of boring holes in earth and clay materials. Under no circumstances should they be used for any other purpose.
- ▲ Before using the post hole digger carefully read and ensure you understand the contents of this manual and the contents of the operators manual for the associated tractor, including all relevant safety instructions.
- ▲ Before operating the post hole digger read all the safety warnings that are carried on the machine. Refer to the next page for the location and the wording of these warnings.
- ▲ Ensure that all operators are fully trained and understand how to safely operate the post hole digger.
- ▲ Do not operate the post hole digger whilst wearing loose clothing, unrestrained long hair, jewellery or anything which could become entangled in rotating parts or limit your vision.
- ▲ Only operate the post hole digger on a tractor fitted with a roll-over protective structure (ROPS), or a cab incorporating a ROPS, complying with AS1636 or equivalent.
- ▲ Wear ear protection when operating the post hole digger on a tractor that is not fitted with a sound proofed cabin.
- ▲ Ensure that the tractor engine power and linkage capacity match the requirements of the post hole digger. Refer to the tractor operator's manual for safe working loads, including any counter-weighting that may be required to balance the weight of the post hole digger.
- ▲ Do not operate the post hole digger without all its safety shields and the tractor safety shields in place.
- ▲ Before operating the post hole digger inspect the area to be worked to ensure that you are familiar with the ground conditions and that the area is clear of tools and equipment such as fencing wire.
- ▲ Ensure that you wear appropriate clothing, including steel cap boots.
- ▲ Ensure that there are no underground electrical cables, telephone cables, gas, water, sewerage or drainage pipes in the area to be drilled. If in doubt about any of the above do not start digging until the circumstances have been fully investigated and it is safe to begin.
- ▲ Exercise extreme care when operating in wet or slippery conditions or on sloping or uneven terrain. Allow for the effect that the weight of the post hole digger has on the tractor's stability. Refer also to the tractor manufacturer's operating and safety instructions.
- ▲ Do not operate the post hole digger with people or animals in the vicinity where they could be caught in the mechanism or injured by the machine. Keep onlookers at least 6 metres from the digger whilst in operation.
- ▲ Always operate the post hole digger from the tractor seat.
- ▲ Never clear earth away from the auger whilst it is operating or allow any helper to do so.
- ▲ Never allow a person to pull down on the digger boom or attach any type of counterweight to the boom to increase penetration
- ▲ Before dismounting from the tractor or allowing any person to approach the post hole digger, disengage the PTO, switch off the tractor engine and apply the parking brake.
- ▲ Ensure the tractor engine is switched off and the parking brake is applied before performing any inspection or maintenance on the digger. If it is necessary to raise the machine for such work ensure it is properly supported. Do not rely on the tractor hydraulics for support.
- ▲ Never allow any person to ride on the post hole digger or the tractor when the digger is attached.
- ▲ Relieve all hydraulic pressure before disconnecting hoses on hydraulic diggers. Oil escaping under pressure can penetrate the skin, causing serious injury. Seek medical advice immediately if injured by escaping oil.

# Safety information

## Locations of Safety Warnings

The location and wording of the safety decals fitted to all Silvan post hole diggers is shown below.

It is important that all operators read and follow the information given on the decals. They should be kept clean and legible at all times. If any are missing or unreadable they should be replaced by ordering new from your Silvan dealer.



**WARNING**

READ THE OPERATORS INSTRUCTION MANUAL BEFORE ATTACHING OR USING THIS PRODUCT.

DO NOT EXCEED THE VEHICLE OR TRACTOR MANUFACTURERS SPECIFIED SAFE LOAD CARRYING AND TOWING CAPACITIES.

FAILURE TO DO ANY OF THE ABOVE MAY RESULT IN SERIOUS INJURY OR DEATH.

DEC 48

**DANGER**

KEEP CLEAR OF OPERATING MACHINERY

MINIMUM CLEARANCE AT ALL TIMES 6MT.

DEC122

DEC 122

**WARNING**

- DO NOT UNDER ANY CIRCUMSTANCES, SIT, STAND, OR HANG FROM THE AUGER FRAME TO INCREASE PENETRATION.
- ALWAYS ENSURE THE AUGER IS MAINTAINED IN GOOD WORKING ORDER.
- FAILURE TO HEED THIS WARNING, MAY RESULT IN SERIOUS INJURY OR DEATH.

DEC123

DEC 123

**DANGER**

ROTATING MACHINERY

- DO NOT OPERATE WITHOUT GUARDS OR SHIELDS IN PLACE.
- WARNING: OPEN ENDS OF GUARDS ARE EXPOSED TO ENTRY.
- TAKE CAUTION NOT TO WEAR LOOSE CLOTHING & TO RESTRAIN LONG HAIR.
- FAILURE TO HEED THIS WARNING, MAY RESULT IN SERIOUS INJURY OR DEATH.

DEC124

DEC 124

**DANGER**

ROTATING DRIVELINE

CONTACT CAN CAUSE DEATH

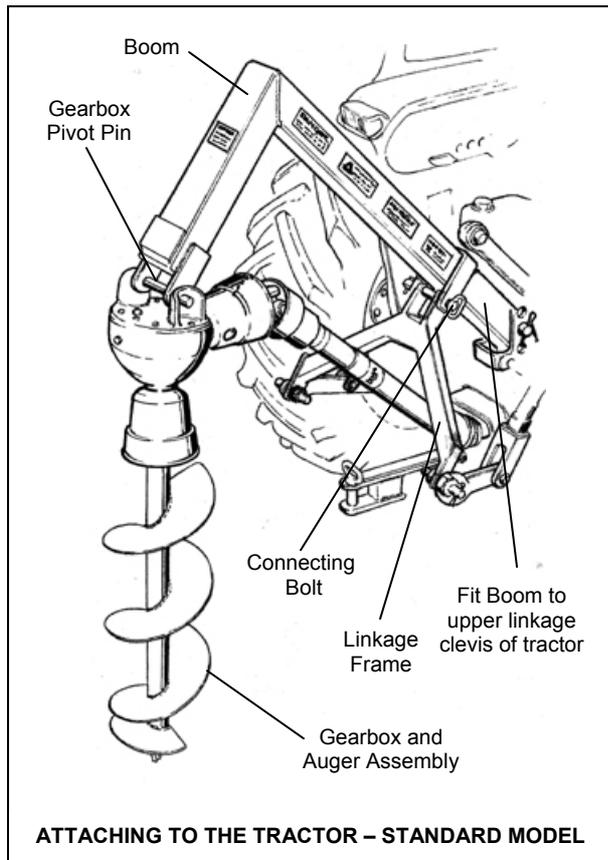
**KEEP AWAY!**

DO NOT OPERATE WITHOUT —

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

399 14 100

## Operation



### Attaching to the Tractor - Initial Assembly

#### 1. Standard Models

At the time of delivery the linkage frame, boom, PTO shaft, and the gearbox with auger attached are supplied as separate items. The following instructions apply for the first installation.



Before performing any installation ensure that the tractor engine is turned off and the parking brake is firmly applied.

All models are fitted with Category 1 lower linkage pins. Two Category 2 bushes are also provided. If it is necessary to fit the linkage frame to a Category 2 tractor, slide the bushes over the Category 1 pins. This will increase the pin diameter to suit. The upper linkage pin and three lynch pins from the tractor are required to complete the installation.

Position the linkage frame of the digger behind the tractor. Disable the tractor draft control mechanism, fully lower the tractor linkage arms and connect the digger linkage pins. Install a lynch pin in each linkage pin to secure the arms.

Fit the inner end of the boom into the upper linkage clevis of the tractor, install the tractor linkage pin and secure it with a lynch pin.

While supporting the boom, swing the digger frame up so that the connecting bolt can be installed in the boom bracket. Tighten the locknut on the connecting bolt so the fit is snug but free to pivot. Three holes are provided in the bracket to facilitate fitment to different tractors. Use the hole that positions the linkage frame nearest to vertical.

If necessary adjust the sway chains on the tractor linkage to centralise the digger and prevent any sideways movement.

Refer to the next page for information on fitting the gearbox pivot pin and PTO shaft.

#### 2. Hydraulic Down Pressure Model

At the time of delivery the linkage frame with boom attached, PTO shaft, hydraulic cylinder with hoses connected, and gearbox with auger attached are supplied as separate items. The following instructions apply for the first installation.

The Hydraulic digger is fitted with bolt-on Category 2 linkage pins. If it is necessary to fit it to a Category 1 tractor, change the pins to Category 1 and use a spacer in the pin hole of the upper link bar to reduce its diameter. Category 1 pins and spacers are available from Silvan dealers. The upper linkage pin and three lynch pins from the tractor are required to complete the installation.

The lower linkage pins can be installed at three alternative heights and the upper link bar can be set to four lengths. These adjustments are used to position the rear member of the linkage frame as near to vertical as possible. As supplied, the linkage pins are in the middle location and the upper link bar in the shortest position.

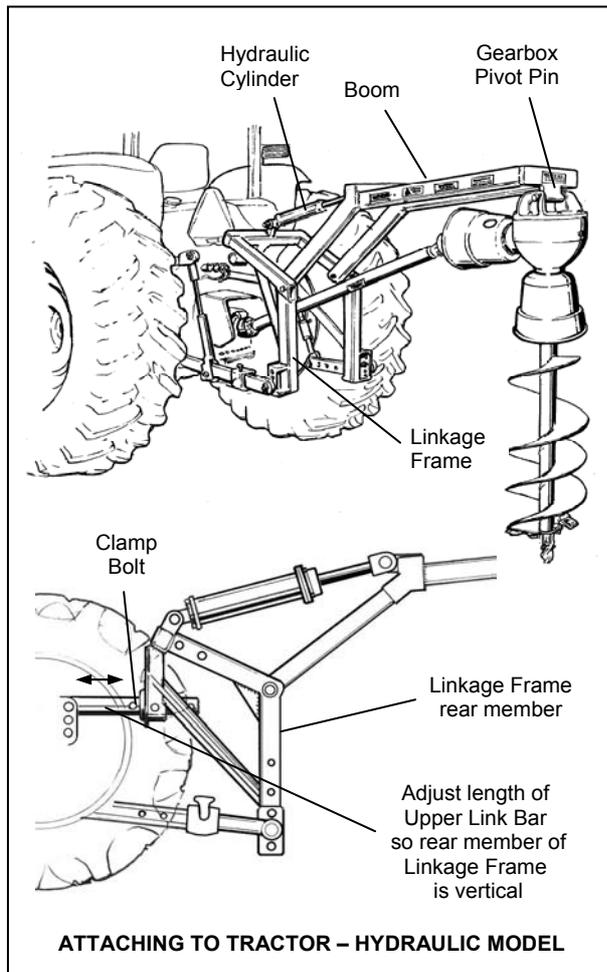
Place the linkage frame and boom assembly behind the tractor. Disable the tractor draft control and lower the linkage arms so they can be fitted over the digger linkage pins. If necessary reposition the pins to a more convenient height. Fit a lynch pin in each linkage pin to secure the arms.

Remove the locking bolt from the upper link bar and swing the linkage frame up so the rear member is vertical. Adjust the length of the link bar (to the nearest hole) so it can be fitted into the tractor upper linkage clevis. Refit the locking bolt and nut to the link bar. Install the upper linkage pin and secure with a lynch pin. It may be necessary to adjust the height of the tractor arms so the holes align to enable installation of the upper pin.

Once the Hydraulic digger is fitted to the tractor the linkage cannot be raised or lowered and the digger height is then controlled by the hydraulic cylinder.

If necessary adjust the sway chains on the tractor linkage to centralise the sub-frame and prevent any sideways movement.

## Operation



Install the hydraulic cylinder between the lugs on the linkage frame and boom using the pins supplied. Connect the hoses to the tractor, see below for further details.

### Connecting the Hoses – Hydraulic Model



Relieve all hydraulic pressure before connecting or disconnecting hoses. Oil escaping under pressure can penetrate skin, causing serious injury. Seek immediate medical treatment if injured by escaping oil.

Before attaching or removing the hydraulic hoses ensure that the quick release connections are clean to avoid contaminating the system.

Plug the digger hoses into the tractor remote outlets. For safety reasons it is desirable to always fit the hoses in the same pattern to ensure that the direction of the control to apply downward pressure will always be the same. This can be achieved by marking the hoses with tags. Ensure the hoses are well supported and clear of the tractor wheels.

### Gearbox Oil Level

The post hole digger is shipped from the factory without oil in the gearbox and it is the dealer's responsibility to add it before delivering the machine. However, before starting the digger for the first time the oil level should be checked and if necessary fill to the level plug with a good quality SAE 85-140 gear oil.

Check the oil level each day before starting the digger and top up if necessary. It is not necessary to change the gearbox oil periodically.

### Attaching the Gearbox and Auger – All Models

Lower the digger boom fully. Position the gearbox and auger assembly behind the boom and align the pivot pin holes. Install the pivot pin and secure with the split pin provided. Make sure that the input shaft of the gearbox is facing towards the tractor, so that the PTO shaft can be fitted.

Raise the boom to full height to allow the auger to hang vertically then lower it so the end of the auger rests on the ground.

### Connecting the PTO Shaft – All Models

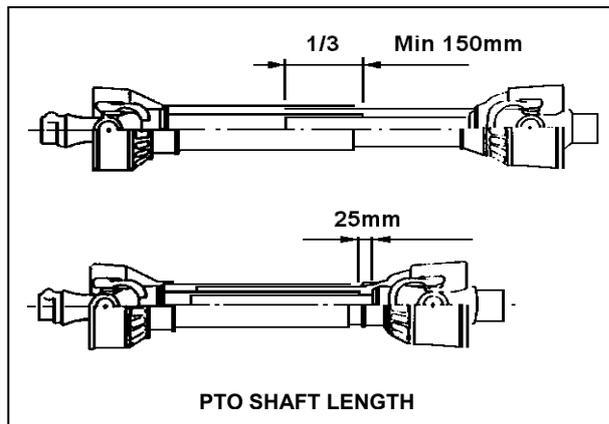
Clean and grease the splines on the tractor and digger PTO stub shafts, fit the friction clutch to the gearbox then install the PTO shaft making sure that the spring loaded locking pins engage in the grooves of both stub shafts. If a PTO cover chain is fitted, ensure the loose end is clipped to the eyelet attachment welded to the boom ensuring not to leave any chain slackness.

Ensure that the PTO stub shaft master guard is fitted to the tractor.

Check that the PTO shaft is of the correct length, as follows. On Standard digger models set the linkage so the ends of the two stub shafts are closest. Install the PTO shaft then depress the locking pin at the gearbox end and pull the shaft back to check there is at least 25mm of telescopic travel remaining. Refit the PTO shaft and raise and lower the digger to check that the telescopic tubes overlap by approximately 1/3rd their length, and not less than 150mm, in all positions. On the Hydraulic Down Pressure model check these dimensions in the fixed operating position. Refer diagram on next page.

If the PTO shaft has to be shortened cut equal amounts from both male and female shafts and safety covers. Carefully remove all burrs and swarf then clean and relubricate before reassembling.

## Operation



### Detaching the Digger from the Tractor



Stop the tractor engine and apply the park brake before physically handling any part of the post hole digger and auger.

Raise the boom to allow the auger to hang vertically then lower it until the end rests on the ground.

Remove the PTO shaft, and on hydraulic diggers disconnect the hydraulic hoses. Move the tractor slowly forward whilst lowering the boom until the digger gearbox rests on the ground. Stop the tractor and fully lower the linkage. Disconnect the upper linkage pin then the lower pins. It may be necessary to use a hoist to take the weight of the digger.

Alternatively the digger can be removed with the PTO still attached to the gearbox by drilling the auger into the ground.

### Attaching Assembled Digger to the Tractor

Position the digger with the PTO shaft removed and gearbox and auger on the ground behind the boom. Back the tractor into position, disable the draft control and lower the linkage. Connect the tractor arms to the digger pins, swing the digger frame up and fit the boom to the tractor upper hitch clevis, or connect the hitch post on a hydraulic digger. Install the PTO shaft. Connect the hydraulic hoses, if applicable.

### Changing the Auger

Interchangeable augers of various diameters are available for all Silvan post hole diggers. Augers for all models have double cutting teeth and range from 6 to 24 inches in diameter. Refer to the Specifications section for the list of auger diameters available. All augers are of the same length and are attached in the same way by two bolts through the gearbox output shaft.

To remove the auger, raise the boom to allow the auger to hang vertically then lower until the end of the auger is about 100mm above the ground. Stop the tractor engine and apply the parking brake. Remove the two attaching bolts from the upper end of the auger and pull down so that it slides off the gearbox shaft. If the auger is tight on the shaft loosen it by sharply striking the auger tube with a hammer where it overlaps the gearbox shaft. If it is necessary to strike the auger longitudinally on the flighting to drive it off the shaft place a piece of timber on the flighting to avoid damage.

Clean and lightly grease the gearbox output shaft and the inner tube of the new auger. Align the bolt holes and slide the auger onto the gearbox shaft. Install and securely tighten the two attaching bolts.

### Changing Auger Teeth and Pilot

When worn the teeth and/or pilot bit on the auger head should be replaced to maintain good digging performance.

Two types of teeth are available and both can be supplied as plain forgings or with tungsten carbide tips for longer life. Flat teeth are used for normal ground conditions. Chisel teeth can be fitted for drilling in rocky ground. Tungsten tipped teeth provide long life in abrasive conditions but can become chipped if used in very rocky conditions. Plain or tungsten carbide tipped pilot bits are also available. The same teeth and pilots fit all augers.

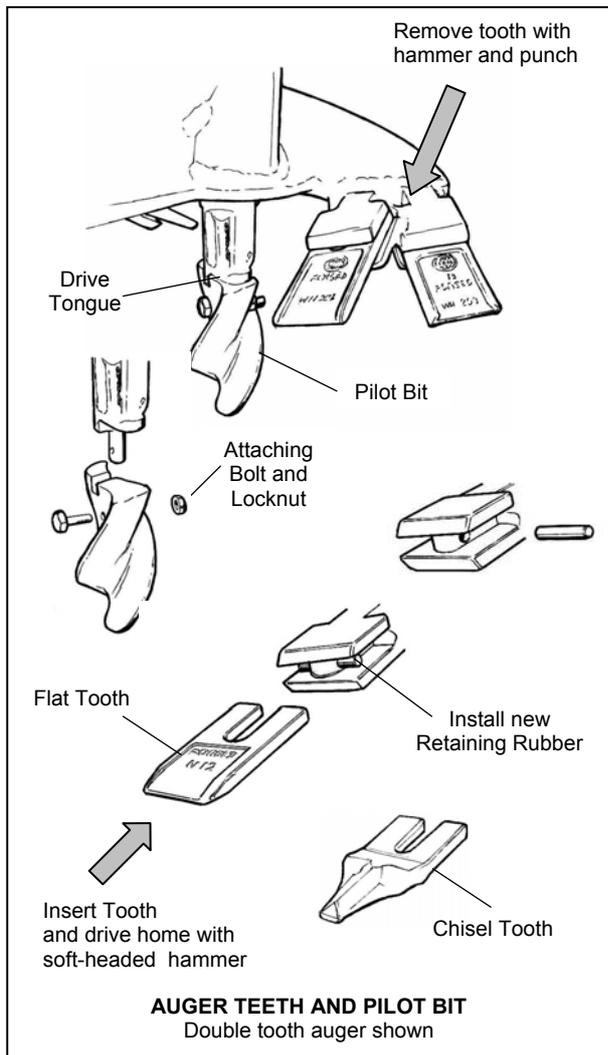
When fitting chisel teeth to double toothed augers it is normal to only fit chisels to the inner position and retain the flat teeth in the outer position. Chisels are rarely required in both positions.

The teeth are located in the socket of the auger head by their U-shaped profile and are held in place by a rubber retainer which is wedged between the tooth and the socket. To remove the tooth, place a small punch on the rear corner and strike it sharply with a hammer to drive it out of the socket, refer diagram below.

Always fit new teeth in pairs and use new retaining rubbers. Teeth and rubbers are sold in sets. Push the rubber through the hole in the socket and position it centrally. Align the U-shape of the tooth with the socket and hammer it into position with a soft-headed hammer, or place a piece of timber between the hammer and tooth.

The pilot bit is located on the stub of the auger head and is driven by an interlocking tongue and slot. A single bolt and locknut secure it.

## Operation

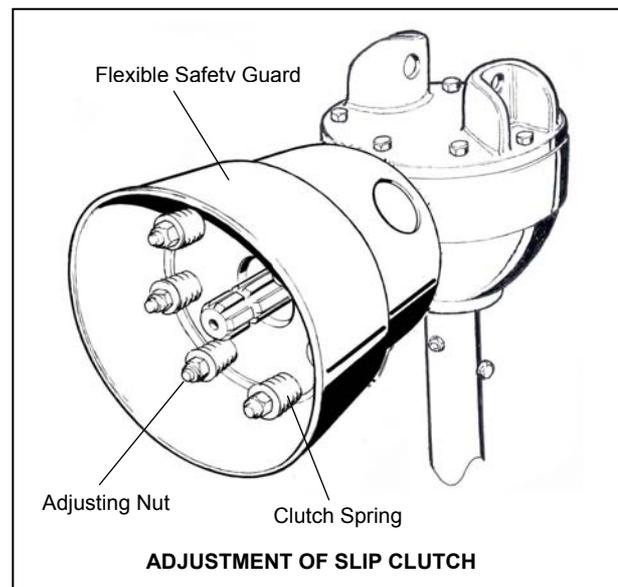


### Adjusting the Slip Clutch

All post hole diggers are fitted with an adjustable friction clutch, which slips under heavy load to prevent damage to the auger or driveline, such as when encountering rocks or heavy tree roots.

The slip clutch is factory set and should not need adjustment under normal use. If it is necessary to adjust the clutch, remove the PTO shaft and turn each of the nuts on the clutch spring bolts by one half turn. Turning the nuts clockwise increases spring loading and reduces clutch slip. Turning the nuts anti-clockwise loosens the clutch.

After adjusting the clutch, operate the digger and check whether slipping continues. It is important that adjustment is made evenly and in small increments. Over-tightening may result in damage to the PTO shaft, gearbox or auger, so care needs to be taken. Under no circumstances should the post hole digger be operated with the clutch tightened to an extent where it is locked.



If the post hole digger has not been used for some time and the clutch cannot be made to slip, it may be seized due to sticking plates. In this case, fully slacken each of the clutch bolts and run the digger for about 30 seconds with the auger in the ground to free the clutch plates and clean the surfaces. Then re-tighten the spring bolts evenly to achieve the required slip setting. This can be done by compressing the springs fully and then backing off two turns.

### Safety Guards

All post hole diggers have factory fitted safety guards over the input and output shafts of the gearbox and a telescopic cover fully enclosing the PTO drive shaft.

Never operate the machine without these covers being correctly fitted and in good condition. Worn or damaged covers do not provide adequate protection and must be replaced before operating the machine.

**It is important that you keep spare covers on hand as immediate replacements so as not to compromise the ongoing safety of operators.**

Replacement covers may be obtained through your Silvan dealer.



**WARNING**

The open ends of drive line covers may still allow entry of objects. Hair and clothing is especially vulnerable to be drawn in by factors such as static electricity or windy conditions

It is extremely important that close physical contact with the machine whilst in operation is avoided at all times without fail.

## Operation

### Auger Operation – Safe Work Practice

A properly selected post hole digger should achieve satisfactory penetration if maintained correctly.

Penetration difficulty is usually due to the cutting blades requiring replacement or the machine not being suitable for the conditions.

Operation of a correctly selected and maintained post hole digger should not require additional weight to be added to the machine.



Entrapment or being struck by the auger could cause serious injury or death. Entrapment in any part of the PTO driveline could also cause serious injury or death. All specified safety procedures must be adhered to at all times without fail.

### Augers are inherently dangerous. Be aware of the following:

- ▲ On hitting a hard object such as a rock or tree root, the auger may jump out of the hole and swing outwards.
- ▲ Nicks, rust or mud on the auger flighting or shaft can catch and pull hair or clothing in and physically draw the operator in.
- ▲ Do not shovel soil from the auger whilst in operation (see above).
- ▲ Keep all tools and equipment such as fencing wire and posts a minimum of 5 metres away from the hole being dug.

### Important Safe Working Practices

To ensure the safe operation of a post hole digger the following procedures must be adhered to:

- ▲ Train all operators prior to use of the machine.
- ▲ Never allow a minor to operate or be in the vicinity of a post hole digger in operation.
- ▲ Ensure that the operator has read the operating manual.
- ▲ Limit work hours to minimise fatigue.
- ▲ Operators must have long hair secured by a cap or other means.
- ▲ Operators must not wear loose clothing, or clothing having a drawstring.
- ▲ Always operate the digger from the tractor seat.



Stand a minimum 6 metres away from the post hole digger when in operation at all times. Failure to do so may cause serious injury or death.

- ▲ Two people should be on the worksite while operating the post hole digger.
- ▲ No person, worker or bystander, should be allowed to approach the machine while it is in operation. Stand a minimum 6 metres clear of operating area.
- ▲ The practice of standing or sitting on the frame of the post hole digger to increase penetration must not be allowed.
- ▲ The operator, or assistant, should not shovel, or otherwise remove, soil from the auger area while it is in operation.
- ▲ Remove all fence wire, wire netting, etc. a minimum of 5 metres from the vicinity of the post hole.
- ▲ The correct cutter points to suit digging conditions must be used and maintained in good condition.
- ▲ The manufacturer's safety guards must be fitted to the machine and maintained in good condition.
- ▲ The post hole digger must be serviced and repaired to maintain optimum operating ability.



Never allow anyone to sit, stand, or hang on the post hole digger frame to increase penetration. Failure to do so may easily result in serious injury or death.

## Operation

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### General Operation

Before operating the digger for the first time carry out the lubrication checks shown in the Lubrication and Maintenance section. Read all the safety information contained in this manual and on the decals attached to the machine. Carefully inspect the area to be dug.

Do not start the tractor with the PTO in gear.

Position the tractor with the auger hanging vertical and touching the ground at the spot where the hole is to be dug. Use the tractor linkage to raise or lower the digger boom on Standard models. On the Hydraulic model use the hydraulic cylinder to raise or lower the boom.

Disengage the tractor draft control and set the tractor engine speed to a fast idle so that the auger will revolve in the range of 50 to 100rpm. The most appropriate auger speed will depend upon the available tractor power, the diameter of the auger and the ground conditions. The larger the diameter of the auger the slower the speed should be.

Engage the PTO drive and allow the action of the auger to penetrate the surface.

On Standard models, slowly lower the tractor linkage to follow the penetration of the auger.

On the Hydraulic model apply down-pressure with the hydraulic cylinder to increase penetration but limit the pressure to ensure that the tractor wheels are not lifted off the ground.

At every 300 to 500mm of depth lift the boom to spin the earth off the auger flighting, then continue drilling. When raising or lowering the auger, move the tractor forward or backward to keep the auger vertical and compensate for the arc of the boom.

If the safety clutch slips reduce the down pressure and if necessary inspect the hole for obstructions.

Before inspecting the hole or when the required depth has been reached raise the auger from the hole and disengage the PTO drive. Move the tractor away from the hole and lower the auger so that the end rests on the ground. Stop the tractor engine, apply the parking brake and dismount to inspect the hole.

### Transporting the Post Hole Digger

Before travelling with the digger attached to the tractor, swing the auger up and forward and secure it with the chain provided. On Standard models fully raise the tractor linkage arms.

Loop the supplied chain around the lower end of the auger and connect the loose end to the body of the chain with the bolt and locknut provided. Attach the upper end of the chain to the digger boom in the same way. Ensure that the chain is securely attached at both ends.

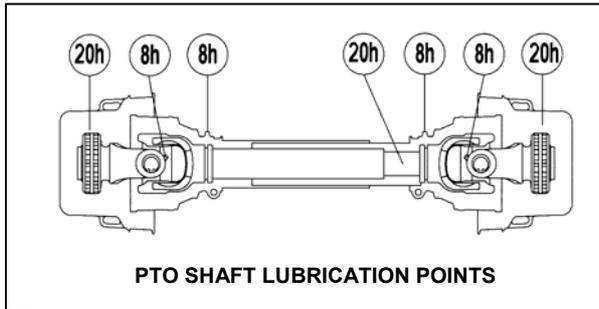
Travel slowly at a speed that is safe for the particular ground or road conditions. If travelling on a public road ensure that the tractor is equipped with all the necessary lights and signs to comply with local regulations.

## Lubrication and Maintenance

### General Inspection

After the first hour of operation and then before starting each day, check that all hardware is tight, in particular the auger attaching bolts and auger pilot attaching bolt.

Inspect for any damaged components and replace before starting operation.

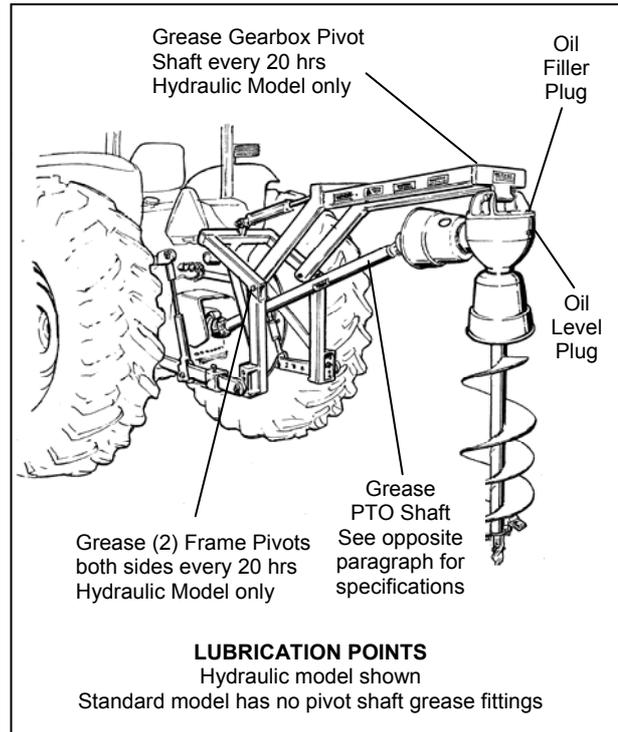


### PTO Shaft

Grease the PTO shaft with multi-purpose grease at the locations shown before starting the post hole digger for the first time and then at the intervals shown. This is the amount of lubrication recommended for normal operation. More frequent inspection and lubrication may be needed under very dusty conditions.

### Pivot Shafts – Hydraulic Model Only

On Hydraulic models grease the nipple on the gearbox pivot shaft and the 4 nipples on the boom pivot shafts approximately every 20 hours



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